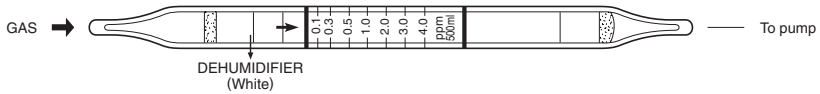
Tube No.
171SC

FORMALDEHYDE



1. PERFORMANCE

1) Measuring range : 0.1-4.0 ppm 0.05-2.0 ppm
Number of pump strokes 5(500mℓ) 10(1000mℓ)
2) Sampling time : 5 minutes/5 pump strokes
3) Detectable limit : 0.03 ppm(1000mℓ)
4) Shelf life : 1 year(Necessary to store in refrigerated conditions ; 0 ~ 10℃)
5) Operating temperature : 10 ~ 40℃
6) Temperature compensation : Necessary(See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 5 pump strokes
8) Colour change : Yellowish orange → Pink

2. RELATIVE STANDARD DEVIATION

RSD-low : 10% RSD-mid. : 10% RSD-high : 10%

3. CHEMICAL REACTION

By reacting with Hydroxylamine phosphate, Phosphoric acid is liberated and PH indicator is discoloured.

$HCHO + (NH_2OH)_3 \cdot H_3PO_4 \rightarrow H_3PO_4 + HCH = NOH + H_2O$

4. CALIBRATION OF THE TUBE

ABSORPTIOMETRIC METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Ammonia		The accuracy of readings is not affected.	10	Lower readings are given. Inlet side is faded the discoloured layer.
Nitrogen dioxide	3	Similar stain is produced.	3	Higher readings are given. The top of discoloured layer becomes unclear.
Acetaldehyde		〃		Higher readings are given.
Toluene		The accuracy of readings is not affected.		The accuracy of readings is not affected.
Methanol		〃		

TEMPERATURE CORRECTION TABLE

Tube Readings (ppm)	Corrected Concentration (ppm)			
	10℃ (50℉)	20℃ (68℉)	30℃ (86℉)	40℃ (104℉)
4.0	6.4	4.0	2.4	1.6
3.5	5.6	3.5	2.1	1.4
3.0	4.8	3.0	1.8	1.2
2.5	4.0	2.5	1.5	1.0
2.0	3.2	2.0	1.2	0.8
1.5	2.4	1.5	0.9	0.6
1.0	1.6	1.0	0.6	0.4
0.5	0.8	0.5	0.3	0.2
0.3	0.5	0.3	0.18	0.12
0.1	0.16	0.1	0.06	0.04

(NOTE)

In case of 10 pump strokes, following formula is available for the actual concentration.
Actual concentration = 1/2 × Temperature corrected value